

water leak protect

Installation and operating instructions



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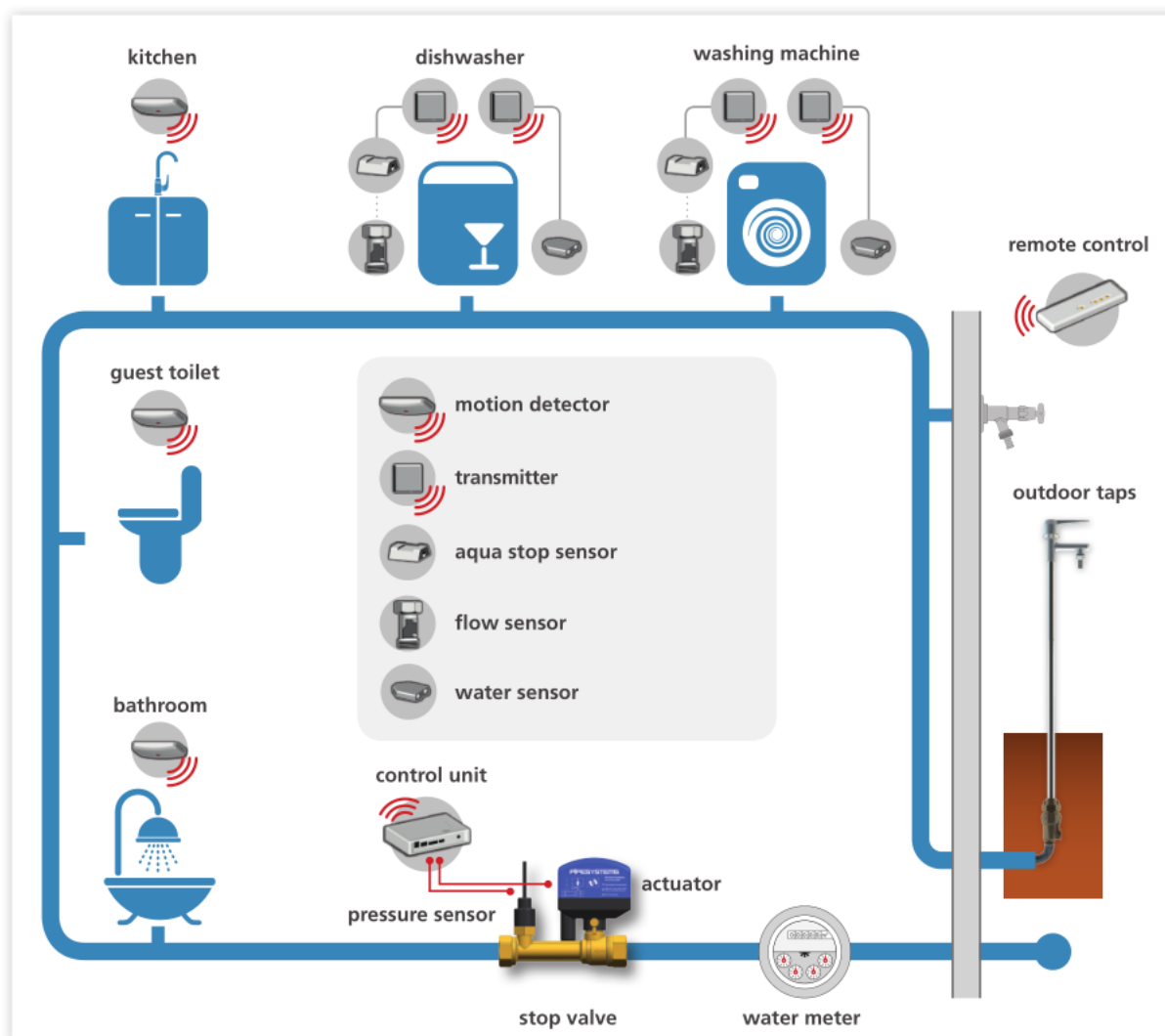
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INTRODUCTION

water leak protect



Functional characteristics

The shut-off valve is in the **closed position** and will open and shut on wireless signals.

The motion detector detects the presence of a person and sends a wireless signal to the control unit, the shut-off valve opens. Once the motion detector does not detect the presence of a person any longer, it sends a wireless closing signal.

The aquastop sensor detects the magnetic field of the solenoid valve mounted on the dishwasher or washing machine and the transmitter sends a wireless opening signal to the control unit to open the shut-off valve. After the solenoid valve is closed, a wireless closing signal is sent to close the shut off valve.

The flow sensor detects opening and closing of the water supply valve for dishwashers, washing machines, hygienic water circulation, side by side refrigerator, outdoor faucets etc. and sends a wireless signal for opening / closing of the shut-off valve.

The transmitter of the water sensor sends a signal to the control unit to close the shut-off valve when water is detected.

The remote control is used for opening the shut-off valve for outdoor faucets, taps and hydrants.

The pressure sensor constantly checks the pressure in the system and keeps the shut-off valve closed when a pressure drop is detected and triggers a beep and light signal.

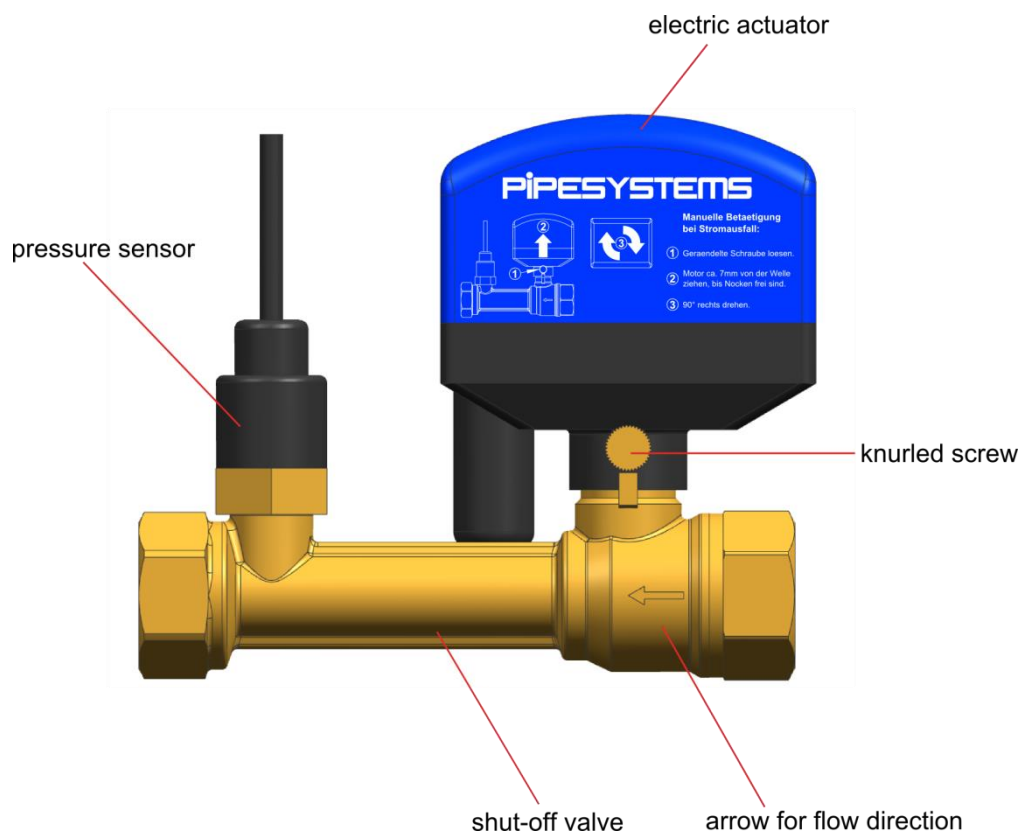
The alarm condition can be stopped by pressing the red reset key on the control unit.

Technical advantages of the system

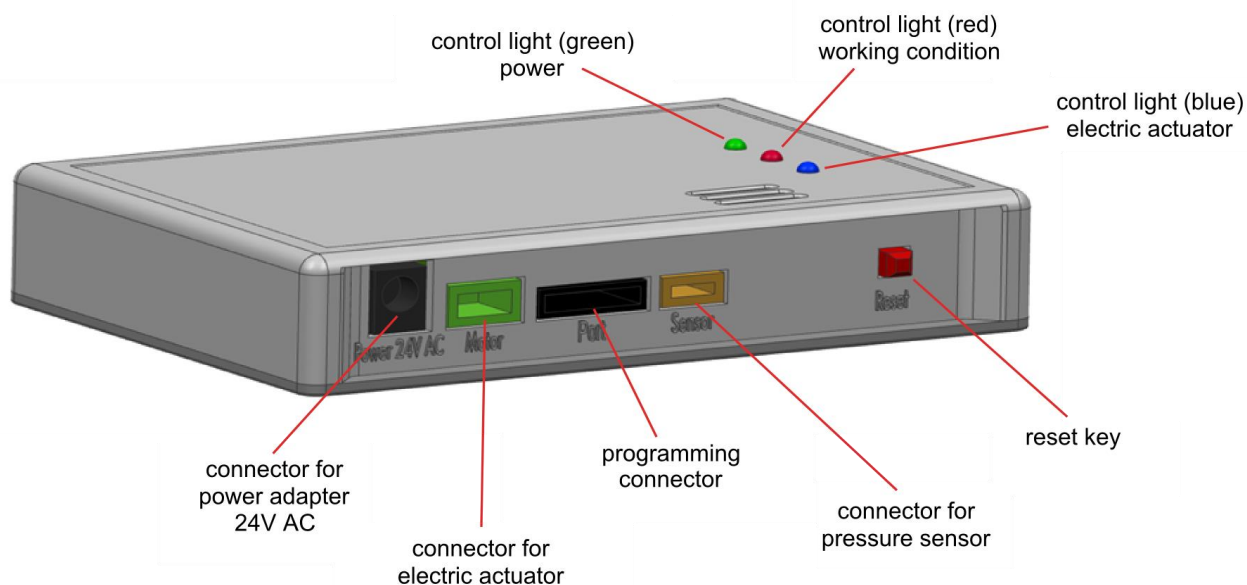
- Reduction of open times of shut-off valve to the times water is needed
- Reduction of time in which a water leakage can occur in the piping system controlled by the water leak protection system
- Alarm is triggered in case the pressure sensor detects a pressure drop and the shut-off valve will stay closed or will be closed
- Leakages in the controlled system will be detected immediately, also the dripping faucet
- Wireless transmission, 868 MHz ISM Band
- No pre-selected opening times or flow rate
- System works full automatically

COMPONENTS OF SYSTEM

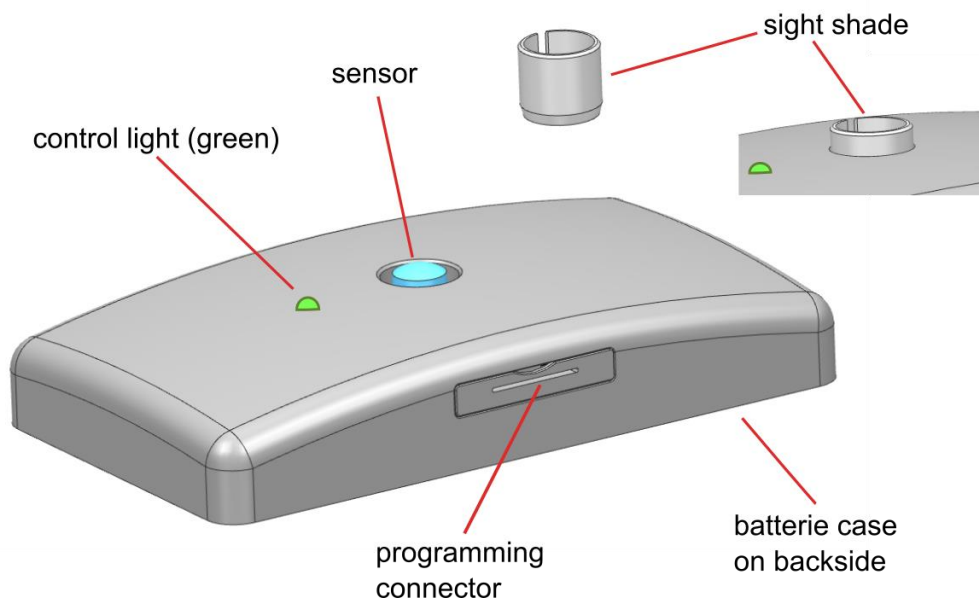
Valve with electric actuator and pressure sensor



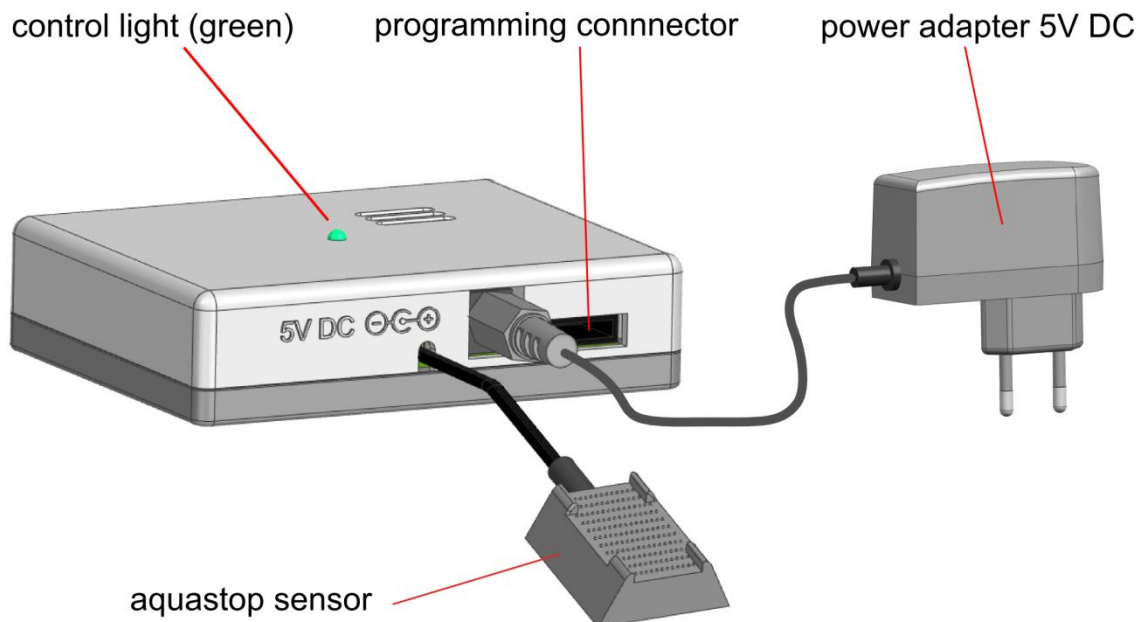
Control unit



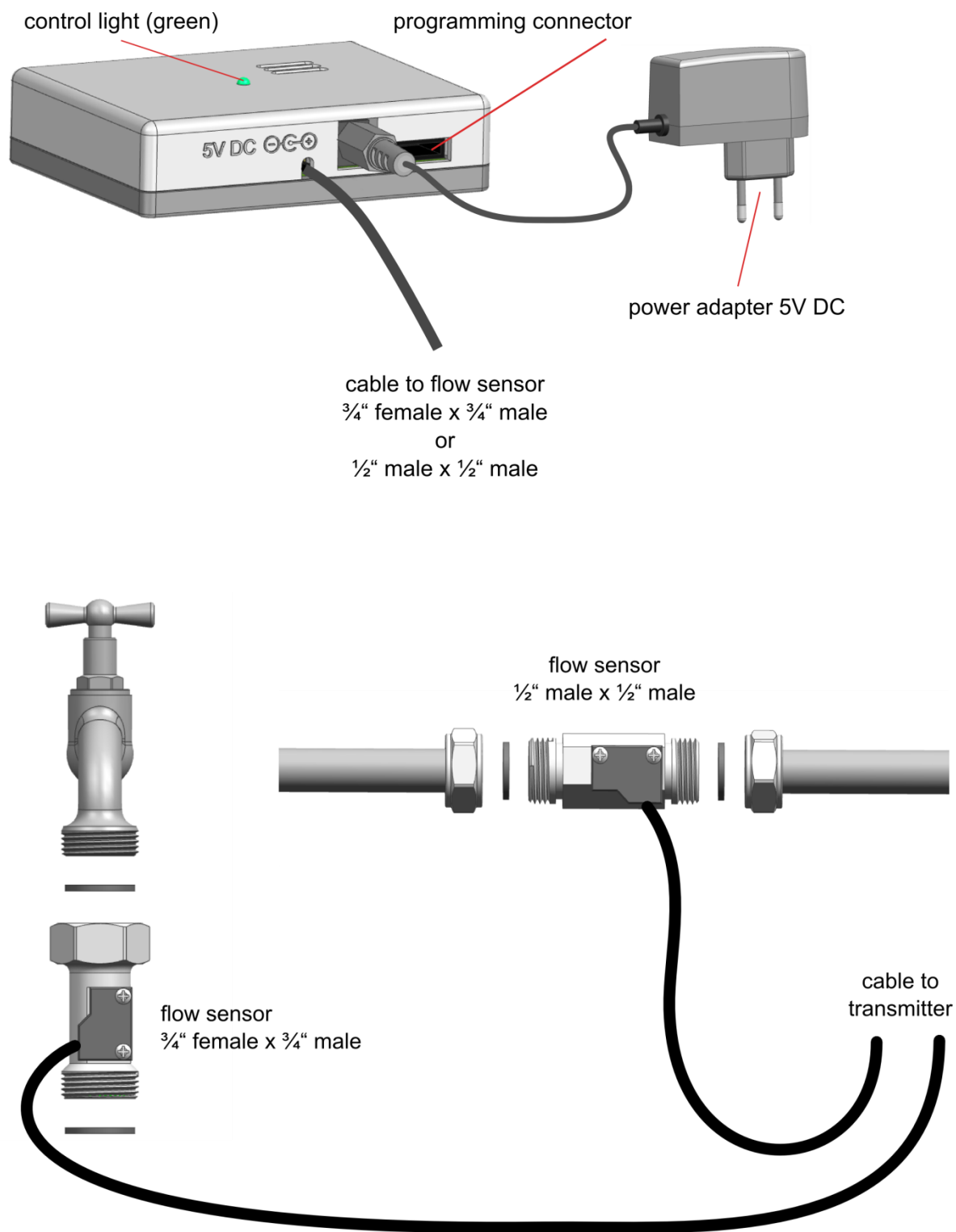
Motion detector



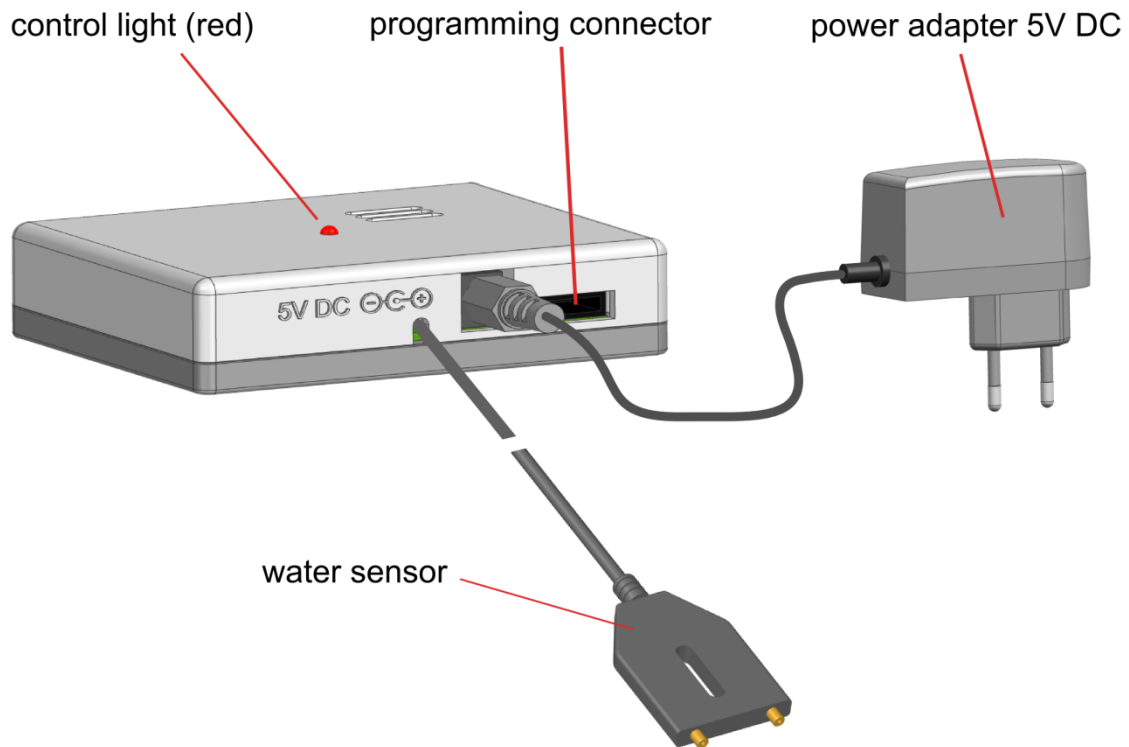
Aquastop sensor with transmitter



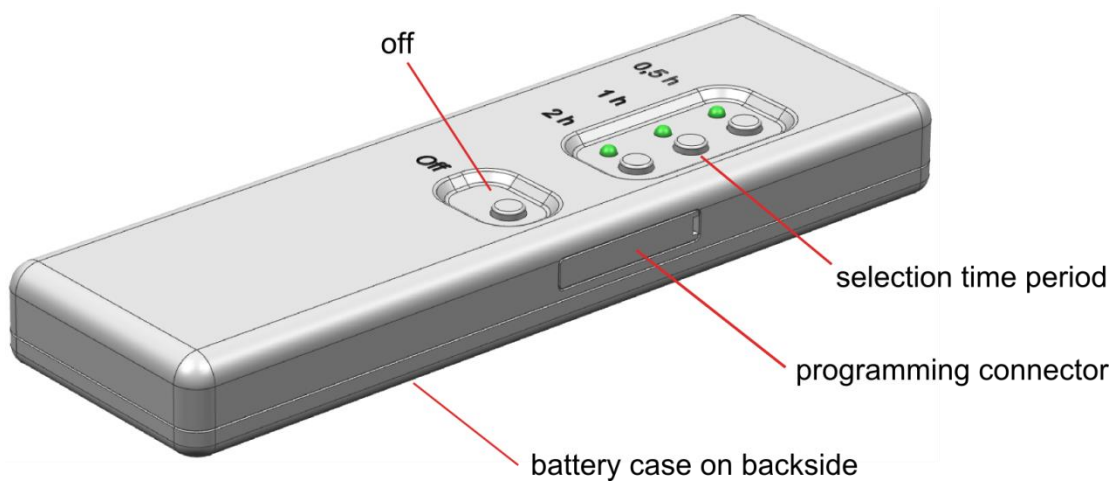
Flow sensor with transmitter



Water sensor with transmitter



Remote control



DESCRIPTION OF FUNCTIONS OF COMPONENTS

Control unit

The control unit receives the wireless messages from the transmitters and activates the electric actuator of the ball valve accordingly. The pressure sensor checks the line pressure continuously and when a pressure drop is detected – while the shut-off valve is closed – an alarm is triggered with an optical and audio signal. In this alarm condition the control unit is not accepting any signals for opening the shut-off valve. The alarm condition will remain active even after a power failure. This alarm can be stopped by pushing the red reset key.

Power socket

The plug of the power adapter 24 V AC has to be plugged into the socket marked “Power 24 V AC”.

Electric actuator

The plug on the cable of the electric motor has to be plugged into the socket marked “motor”.

Pressure sensor

The pressure sensor has to be screwed into the 1.1/4” female thread of the valve and the plug mounted on the cable has to be plugged into the socket marked “sensor”.

Programming socket

This programming socket is required for programming the control unit and connecting the control unit with the transmitter/sensor by using the programming cable.

Reset key

By pressing this reset key for a short period of time you can stop the alarm condition. Pressing this key for a longer time you start the holiday function.

Control lights

- Green light is signal for Power On
- Red light has 3 working conditions:

• blinks continuously in short intervals:	control unit is working, everything is okay
• blinks in longer intervals with audio signal:	alarm is triggered
• blinks in very short intervals:	there is a fault in the control unit.

- Blue light shows the shut-off valve is open or is opening.

Audio signal

The audio signal in connection with the red light indicates the alarm condition.

After programming the control unit with a transmitter using the programming cable a short audio signal indicates the completion of the initialization.

Ball valve with actuator

The ball valve with the actuator opens/ closes the water supply line.

Power adapter 24 V AC

This power adapter supplies the power for the control unit.

Pressure sensor

The pressure sensor continuously checks the line pressure and sends signals via the cable connection to the control unit.

Motion detector

The motion detector detects the presence of a person and sends wireless signals to the control unit. There are 2 models of motion detectors available either with 10 or with 20 or 30 minutes follow-up time (see page 15).

Batteries

The 3 x 1.5 volt batteries are required as power supply for the detectors and remote control.

Aquastop sensor with transmitter

The aquastop sensor detects the magnetic field of the aquastop solenoid valve and sends wireless signals to the control unit to open/close the shut-off valve.

Flow sensor with transmitter

The flow sensor detects the opening of the water supply valve for dishwashers, washing machines, hygienic water circulation, side by side refrigerator, outdoor faucets etc. and send a wireless signals for opening / closing of the shut-off valve.

Water sensor with transmitter

When the water sensor detects water, the transmitter sends a wireless signal to the control unit and triggers the alarm.

Power adapter 5V-DC

Power adapter 5V-DC for aquastop sensor and water sensor.

Remote control

With the remote control the stop valve opens for the time period chosen.

INSTALLATION PROCEDURE

Sequence

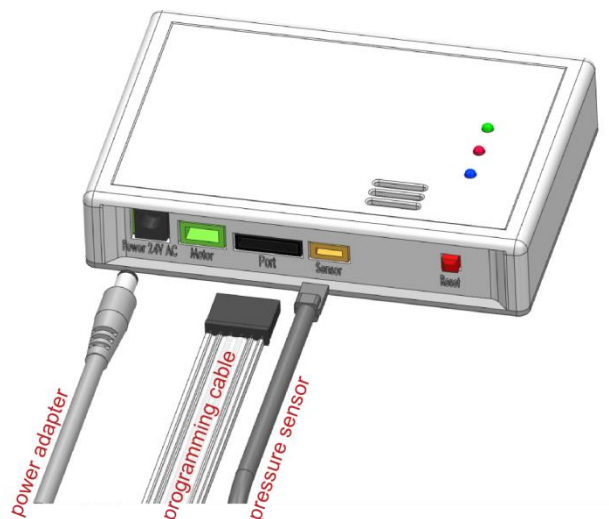
1. Set up of transmitters
2. Installation of ball valve and actuator
3. Installation of control unit
4. Installation of transmitters
5. Final test

Preparations for installing sensors, transmitters and control unit

Prior to the installation of the components same have to be initialized. For initializing you require 2 power sockets with 230 V AC and batteries for the motion detectors and remote control. Place all components in front of you.

Setting up of control unit

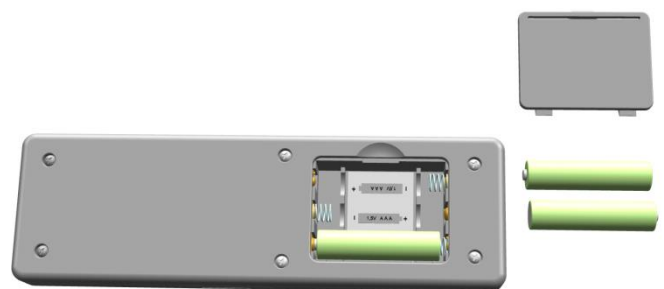
Connect the power adapter 24 V AC with the control unit (right picture). Plug the programming cable into the socket of the control unit and leave the programming cable plugged into the control unit until all sensors and transmitters have been initialized and tested. Plug the power adapter 24 V AC into the 230 V AC socket.



Setting up of remote control

Place the remote control with the back side up in front of you. Open the battery compartment and insert batteries as illustrated.

Close the battery compartment. Put the remote control in front of you so that you can push the buttons. For the control function push the button marked 0.5 h. Now the green light should blink in short intervals. Connect the free end of the programming cable connected to the control unit with the remote control. After 5 seconds an audio signal is indicating that the initialization has been completed successfully. Disconnect the programming cable from the remote control. Press the button "off" and then the button 0.5 h. Now the blue light on the control unit should be on. When you push the button "off" the blue light on the control unit should go off. The remote control is now set up and tested. Please repeat this procedure for every further remote control you want to use



Setting up of aquastop and flow sensor with transmitter

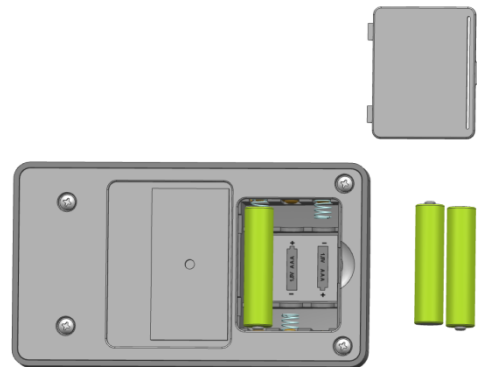
Please connect the power adapter 5V DC with the transmitter. The green light should blink regularly. Please connect the free end of the programming cable connected to the control unit with the transmitter. After 5 seconds an audio signal will indicate that the initialization procedure has been completed. Please disconnect the transmitter from the programming cable. In order to check the function of the aquastop and flow sensor please put the aquastop and flow sensor onto the surface of the power adapter 24V AC of the control unit. If the sensor has detected the magnetic field of the power adapter the green light on the transmitter and the blue light of the control unit should light up. Take the sensor away from the magnetic field of the power adapter. The green light of the transmitter is now blinking in short intervals. Please wait for approximately 30-40 seconds and the blue control light on the control unit should go off. The aquastop and flow sensor with transmitter is now set up and tested. Please repeat this procedure for every further aquastop / flow sensors required.

Setting up of water sensor with transmitter

Please connect the power adapter 5V DC with the water sensor transmitter. The red light should blink in short intervals. Please connect the free end of the programming cable connected to the control unit with the water sensor transmitter. After 5 seconds an audio signal will indicate that the initialization procedure has been completed. Disconnect the water sensor transmitter from the programming cable. For checking the function of the water sensor please hold the two pins of the water sensor into a glass of water. The audio signal will indicate the alarm status. Press the red reset-key on the control unit to stop the alarm. Please repeat this procedure for every further water sensor transmitter.

Setting up of motion detector

Check whether you have the right motion detectors (motion detector with 10 minutes follow-up time for kitchen and guest toilet, 20 or 30 minutes follow-up time for bathroom and shower). Please insert batteries in the compartment on the backside of the remote control unit as illustrated. Connect the free end of the programming cable on the control unit with the motion detector. After 5 seconds an audio signal will indicate that the initialization procedure has been completed successfully. Please disconnect the motion detector from the programming cable and repeat this procedure for any further motion detector required.



CHECK ON WIRELESS TRANSMISSION RANGE

Please check the wireless transmission range of each sensor with transmitter.
Install the control unit and shut-off valve with the electric actuator as described in the installation instruction (Pages 17/18).

Take the remote control to check if the wireless signals from the remote control are being transmitted successfully from the installation position of each motion detector. Push the 0.5 h button of the remote control and check whether the blue light on the control unit lights up and confirms the receipt of the wireless opening signal.

Please do this wireless range test for each installation position of any mounted transmitter/sensor. In case the wireless signals should not reach the control unit please check for possible metallic obstructions which could disturb the wireless transmission. The installation position of the control unit may have to be changed in order to get a better wireless transmission range.

After this wireless transmission check has been completed the installation of the components can begin.

In case there are problems on the wireless transmission if control unit is mounted in the cellar, please use 5 or 10 m long extension cables available for electric actuator and pressure sensor.

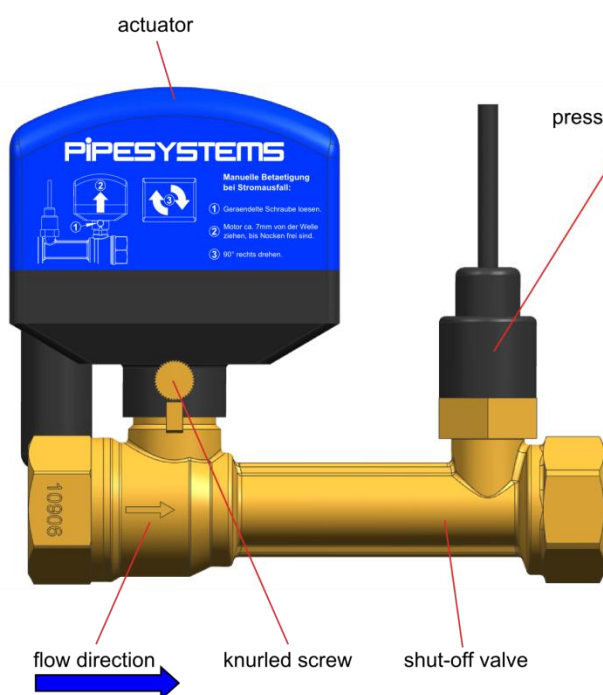
INSTALLATION OF COMPONENTS

Ball valve with actuator

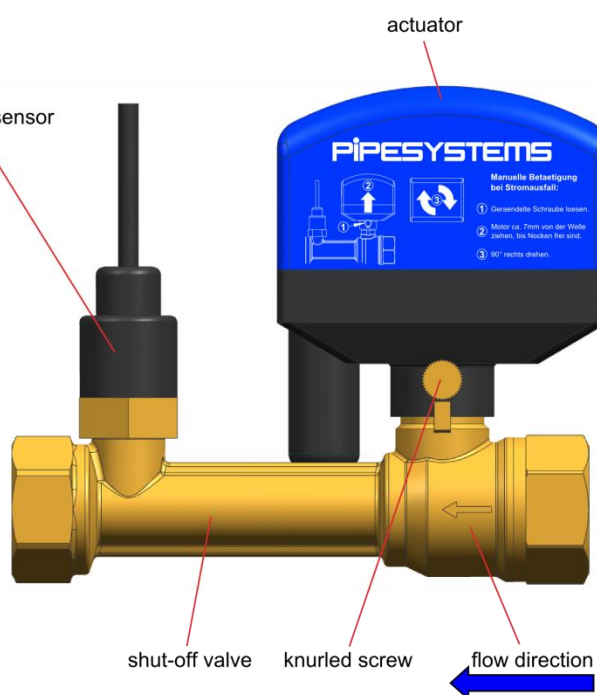
Please install the ball valve behind the shut-off valve after the water meter or behind the pressure reducing valve and filter if same are installed in the system. The ball valve and actuator should be installed as shown in picture 1 so that the knurled screw and the manual override description are visible. Please consider the arrow on the valve body showing the flow direction. In case the flow direction is from the opposite side please install the valve and actuator as shown in picture 2 and loosen the knurled screw. Take off the actuator, turn same by 180°, remount same and tighten the knurled screw.

Please consider that the manual override description and the knurled screw is always good visible for the person doing the installation. After this installation has been completed the pressure sensor can be mounted.

Picture 1



Picture 2

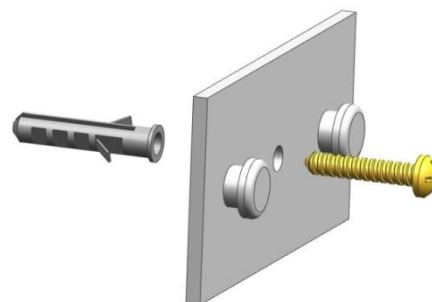


Upside down mounting is not permitted!



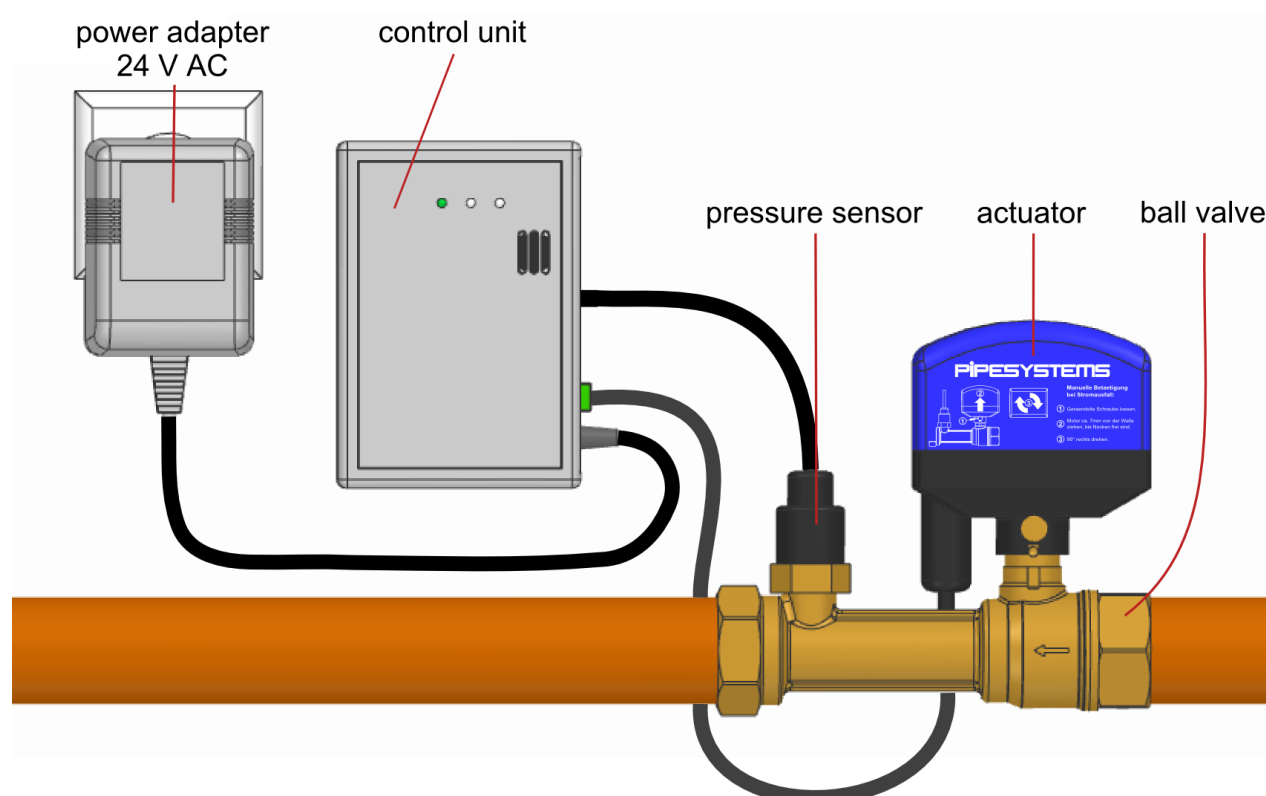
Mounting of wall plate

For all transmitters except the remote control wall plates, screws and plastic sockets as well as glue tapes are included. These wall plates should be fixed by a screw or the adhesive strip.



Control unit

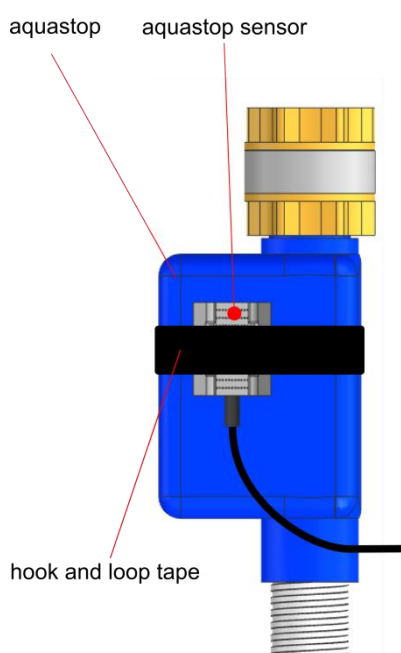
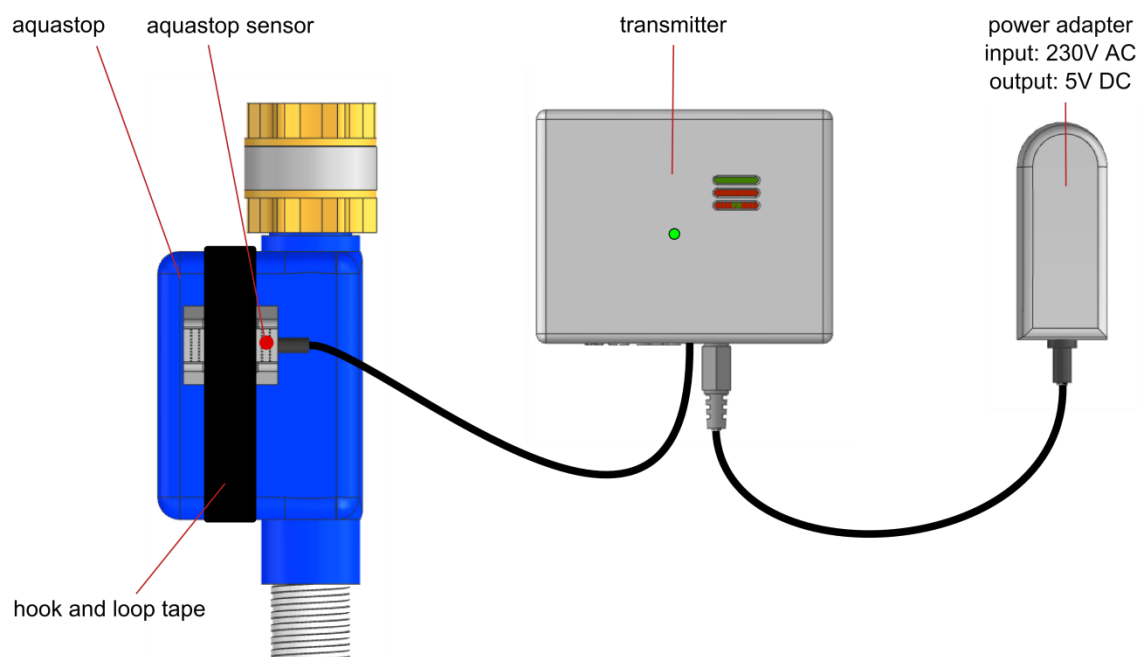
Please install the control unit right next to the ball valve and actuator. Please check whether the connecting cables are long enough for the installation position of the control unit to the actuator and pressure sensor. Please consider that the cable connection between the actuator and the control unit has to be in a position that a manual override by turning the actuator 90° is possible (see picture below and dimensional data sheet page 31). You need a 230 V AC power socket in reach of the power adapter 24 V AC.



Connect the actuator with the control unit. Connect the pressure sensor with the control unit. Connect the power adapter 24 V AC with the control unit. The green light on the control unit should be on and the red light should blink in short intervals. The control unit is set up.

Aquastop sensor with transmitter

Install the aquastop transmitter near the aquastop solenoid valve in the position determined before by checking the wireless transmission range using the remote control. The best installation position of the transmitter is near the water inlet of the dishwasher or washing machine to be protected. Please use an installation position considering that no metallic parts are disturbing the transmission of the wireless signals. Fix the aquastop sensor in the area where the magnetic field of the solenoid valve is generated on the aquastop valve using the adhesive tape. Connect the 5V-DC power adapter.



Positioning of the aquastop sensor:

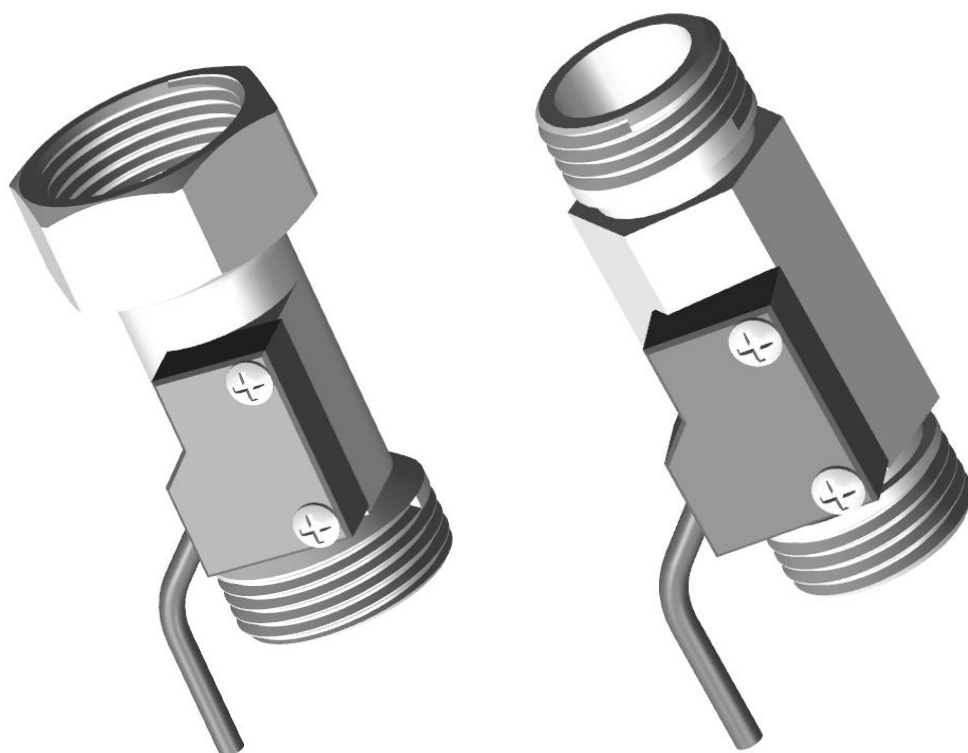
Please check the function of the aquastop sensor by starting the dishwasher /washing machine. When the solenoid valve of the aquastop is opening a wireless signal should reach the control unit to open the shut off valve (blue light should light up).

The sensor must be located on the magnetic field generated by switching the aquastop solenoid valve when opening. Please see the 2 mounting positions shown.

Flow sensor with transmitter

Install the flow sensor transmitter near the water supply valve to be controlled in a position determined before by checking the wireless transmission range using the remote control. Connect the 5V-DC power adapter.

The flow sensors are available with $\frac{3}{4}$ x $\frac{3}{4}$ threads or $\frac{1}{2}$ x $\frac{1}{2}$ threads.



$\frac{3}{4}$ " female x $\frac{3}{4}$ " male

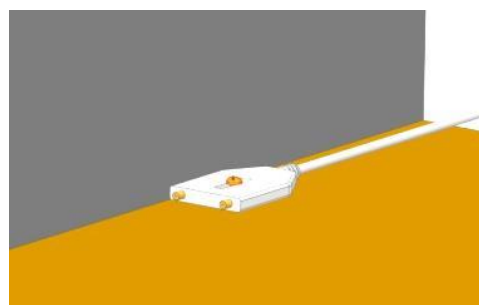
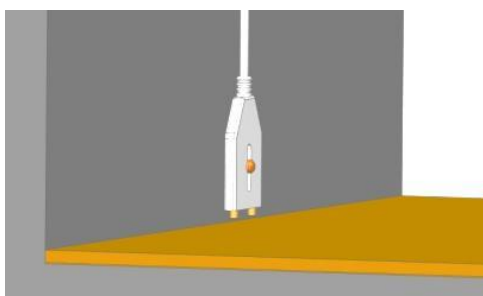
$\frac{1}{2}$ " male x $\frac{1}{2}$ " male

Please consider flow direction arrow when installing flow sensor!

When turbine of flow sensor starts turning, magnetic impulses will be detected by sensor. The transmitter sends an opening signal to the control unit, the green LED is continuously on while turbine is turning. When turning of turbine is stopped green LED will start to blink.

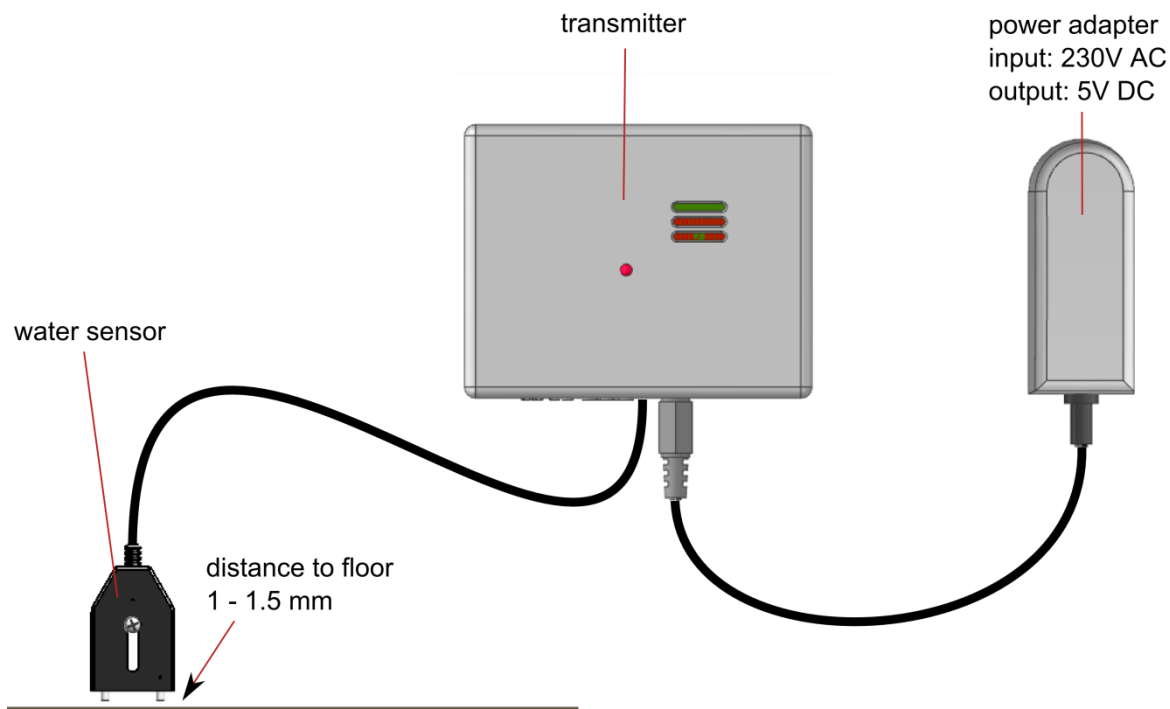
2 minutes after the turbine has stopped, the transmitter will send a closing signal to control unit.

Water sensor with transmitter



Install the water sensor transmitter in the position you have checked before using the remote control for the wireless transmission range. Please consider that metallic parts could interfere with the wireless transmission. Install the water sensor upright as shown above (picture left top) or flat horizontally on the floor (picture right top) in the area to be controlled. Connect the 5V-DC power adapter.

Please consider that the 2 pins of the water sensor do not have any electrical contact to the wall, floor. The wall mounted position should allow for the distance between the floor and the 2 pins to be approx. 1-1.5 mm (see picture below).



Motion detector

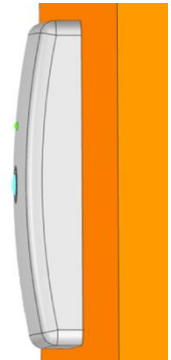
We supply motion detectors with a follow-up time of 10, 20 or 30 minutes.

Once the detector does not detect the presence of a person any longer 10, 20 or 30 minutes will elapse before the motion detector sends a closing signal to the control unit. We recommend 10 minutes follow-up time for kitchen, guest toilet etc. and 20 or 30 minutes for a bathroom.



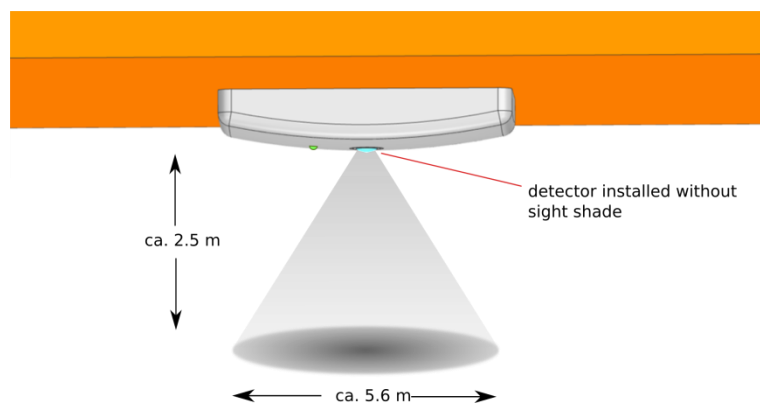
ceiling mounting

wall mounting



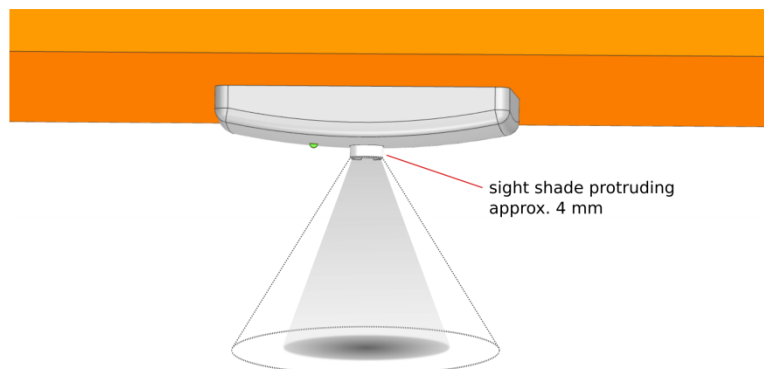
Full room control (i.e. bathroom, guest toilet)

The motion detector registers the presence of a person in its sight field. Please choose the position for mounting so that the motion detector can control the area to be checked. The final mounting position should be checked using the remote control checking for the wireless transmission range. The sensor of the motion control can detect persons in a distance of approx. 5 meters. The sight field has an angle of approx. 82°. This means that the sensor mounted in a distance of 2.5 m can control an area of approx. Ø 5.6 meters.



Part room control (i.e. kitchen, taps, individual faucets)

You can reduce the sight field of the sensor with the sight shade. Pull out or press this sight shade into the housing according to your requirements. The more you pull the sight shade out of the housing the smaller the sight field of the sensor gets.



Check on detection area of motion detector

When the motion detector detects the movement of a person the green light is blinking in intervals. This enables you to check on the sight field of the motion detector.

Final tests

When all components of the system have been installed the following final tests should be carried out:

Water sensor with transmitter

Please take a piece of tissue paper and dip same into water. Please touch with this wet tissue paper the ends of the 2 pins of the water sensor so that both are electrically bridged. Now the alarm is triggered and the valve closes.

Pressure sensor check / pressure drop test

Please blind fold the optical sensor of a motion detector. During this testing time please make sure that no other sensor of the system is sending wireless signals to the control unit in the period of testing. Wait until the "follow-up time" of the motion detectors has expired and that the control unit has closed the shut-off valve and the blue light on the control unit is off. Wait for another 20 seconds until the actuator has closed the shut-off valve completely. Open the faucet controlled by the blinded motion detector and simulate a leakage. When the water pressure in the piping system drops within 10 minutes by 20% the alarm is triggered. Please press the red reset key of the control unit to stop the alarm. Take off the material with which you have blind folded the motion detector.

SPECIAL SITUATIONS

Holidays

If you stop the electricity supply during your holiday you will have to put the control unit into the holiday mode. In the holiday mode the shut-off valve is closed.

Starting holiday mode

Please press the red reset-key for more than 5 seconds. The control unit will start to give a rhythmic audio signal. Please wait until this audio signal is changing into a longer beep. The red light is blinking now in a 3 seconds interval and the blue light is off. In this mode you can stop the electricity supply.

Stopping holiday mode

Please press the red reset-key for more than 5 seconds. 3 beeps are following and the red light starts to blink in a 1 second interval. The control unit is back in normal working condition.

Remarks

The holiday mode can also be used to close the stop valve in case of an emergency when the system is connected to the normal power supply. The time from the first pressing of the red reset key until the final closing of the shut-off valve is max. 23 seconds. In case of an emergency and without electric power please follow the manual override instruction printed on the actuator.

Water required outdoor

Use flow sensor with transmitter for controlling the valve for the outdoor water supply.

Filling of large containers

For the water supply to outdoor taps, hydrants and faucets please use the remote control and press the buttons 0.5h, 1h or 2h for time period water is required. If you have for example pushed the button 0.5 h but then decide you want water for 1 h please press the button 1h and from the time you press the button the valve will be opened for the 1 hour. The originally chosen time is deleted.

Note: the alarm will be triggered when the time selected has elapsed and the faucet tap is not closed.

SERVICE

Control unit

Check on pressure drop alarm once a year.

Remote control and motion detectors

Change batteries once a year.

REMARKS

Notes on safety

**Never put a finger into the ball valve
when actuator is mounted!**

Batteries

Please use the ready available standard batteries type **AAA 1.5 V** (Ø 10.5 x 44.5 mm long). Please use only leak-proof new alkali manganic batteries. When mounting the batteries please check for the correct mounting as per the printed instruction in the battery compartment.



Batteries may contain toxic substances!
Keep in mind the rules for waste removal of the makers!

Wall sockets

Please use the power adapters supplied by us only on certified and approved wall sockets!

Wireless transmission

Our system is using the 868 MHz ISM band. The signals are transmitted on a straight line in all directions. The installed transmission power is sufficient for normal homes. Metal sheets or very thick armored concrete can disturb the wireless transmission and can reduce the range of the wireless transmission.

Electricity consumption

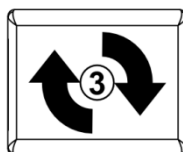
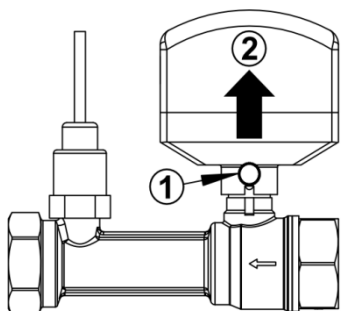
Control unit	24 V AC	< 1 W	
Actuator	24 V AC	7 W	only when operating
Flow sensor	5 V DC	< 1 W	
Water sensor	5 V DC	< 1 W	
Aquastop sensor	5 V DC	< 1 W	
Motion detector	3 Batteries 1.5V AAA	< 0.00005 W	
Remote control	3 Batteries 1.5V AAA	< 0.00005 W	

EMERGENCY

Manual override

Please follow the instruction printed on the cover of the actuator.

PIPESYSTEMS



Manual operation in case of power blackout

- ① Loosen knurled screw.
- ② Lift actuator approx. 7 mm from ball valve so that the 2 protruding knobs on the neck of the ball valve are clear for 90° right turn.
- ③ 90° right turn.

Power blackout

In case water is required during a power blackout the shut-off valve can be operated manually (see manual override instruction printed on cover of actuator). Please consider that the system in this manual override open condition does not protect against leakage. Please put the system back into normal working condition after the power is back.

Leakage

Please call the plumber when there is a leakage. When system is in alarm condition please do not use manual override because water flood could happen.

In case of a defect on the control unit or actuator

Please disconnect the power adapter and use the manual override function if water is required. Please call your plumber for service.

TROUBLE SHOOTING

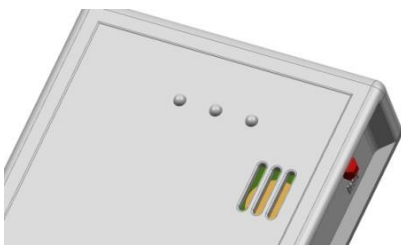
Control unit

Normal working condition

When the green light is on the power supply is connected. When the red light blinks in intervals the system is in working condition. When a wireless signal is received by the control unit from a sensor the valve is opening (blue light is on). When the control unit receives a wireless signal to shut, the valve will be shut (blue light is off). When an alarm is triggered by a water sensor or the pressure sensor (when valve is closed) the valve will remain closed (blue light off). The red light blinks and an audio signal is given. In case of an alarm the red reset key can be pressed and the control unit is back into normal working condition.

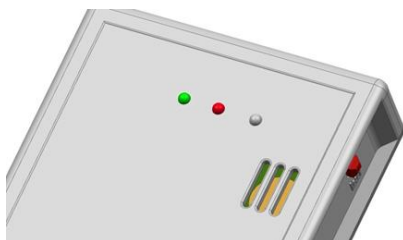
Fault condition

1. All lights are off



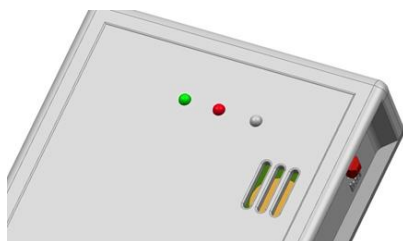
It can be that the power supply is interrupted. Please check the power supply and the power adapter.

2. The blue lights are on. No water flowing, the control unit goes into alarm and the blue lights are off.



A leakage might be in the piping system. Please check whether all faucets, taps and outside faucets, hydrants etc. are closed. If no faucet or tap is open there is a leakage.

3. The red light blinks in intervals and the control unit does not operate.



The control unit has an internal problem and has to be replaced.

Motion detector

Normal working condition

If you come into the sight field of the motion detector the green light blinks in intervals as long as the motion detector is detecting a motion in its sight field. At the same time a wireless signal is sent to the control unit to open the shut-off valve. After the motion detector does not detect the presence of a person any longer it sends a closing signal after the “follow-up” time has elapsed.

Fault condition

The green light is off!

1. **The valve does not open when there is a person in the sight field of the motion detector.**

Alternative 1:

The batteries can be empty.

Please use new batteries.



Alternative 2:

The motion detector is out of wireless range.

Take the remote control and check whether the wireless signals are reaching the control unit from the location the motion detector is placed. While making this test no other sensors should be active by sending an opening signal to the control unit. Please make sure that all other sensors do not send any opening signals during this test.

2. **The green light is blinking in short intervals and the control unit does not react.**
The motion detector has an internal problem and has to be replaced.



Please consider the follow up times programmed.

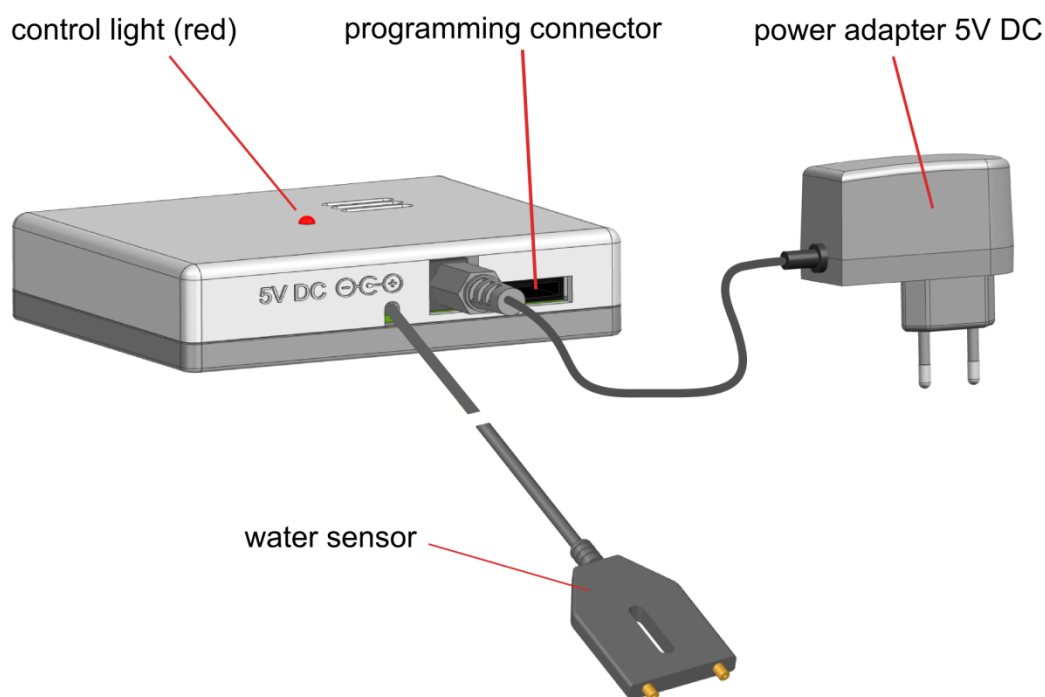
Water sensor with transmitter

Normal working condition

The red light blinks in intervals. When the 2 ends of the pins of the water sensor are electrically bridged the red light will be on and an audio signal is sent as long as the 2 pins have an electric contact. The transmitter sends a wireless alarm signal to the control unit and the valve closes.

Fault condition

1. **The red light does not blink in intervals.** Please check on the power supply.
2. **The red light is blinking and the audio signal is sent.**
Possibly the 2 pins of the sensors are bridged by cleaning fluids. Please dry the 2 contacts with a paper tissue.
3. **The water sensor is detecting water but the control unit does not react.**
Please check the wireless transmission range from the installation position of the water sensor transmitter to the control unit with the remote control.
4. **The red light is blinking in short intervals and the water sensor shows no reaction.** The water sensor has an internal problem and has to be replaced.



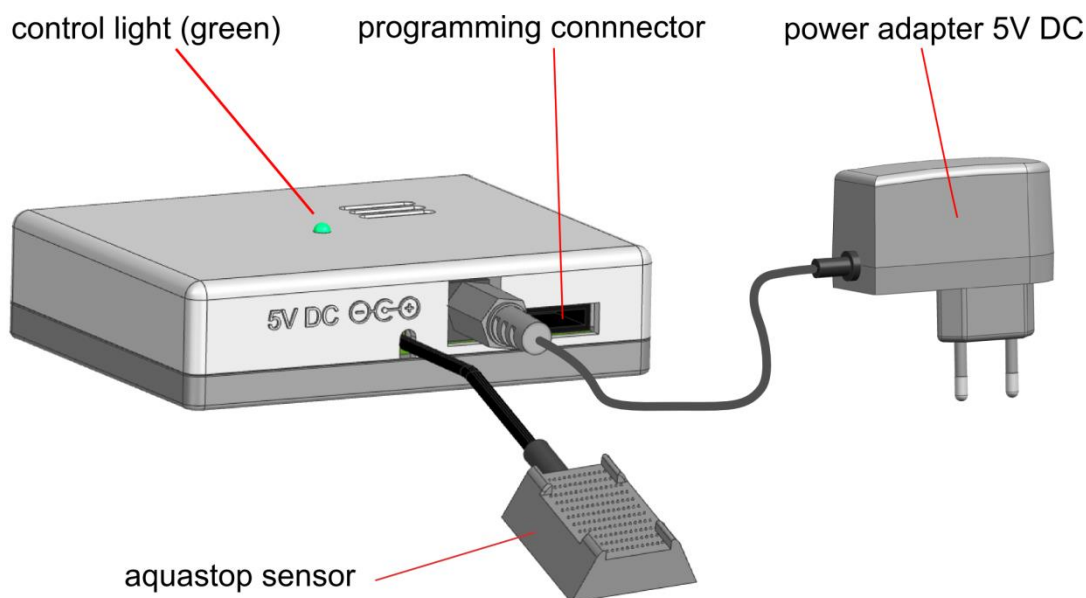
Aquastop sensor with transmitter

Normal working condition

The green light blinks in intervals. When the sensor detects the magnetic field of the solenoid valve on the aquastop the green light is on as long as the magnetic field is detected by the sensor and the transmitter sends a wireless signal to the control unit to open the shut-off valve.

Fault condition

1. **The green light does not blink in intervals.**
Please check on the power supply.
2. **The green light is not on despite the aquastop / magnetic valve opens.**
It can be that the sensor is not placed in the right position on the magnetic field of the solenoid valve. Please re-position the sensor.
3. **The transmitter sends a signal but the control unit does not react.**
Please check using the remote control the radio range from the position the aquastop sensor with transmitter is installed to the control unit.
4. **The green light blinks in quick intervals and the aquastop sensor does not show any reaction.**
The aquastop sensor has an internal problem and has to be replaced.



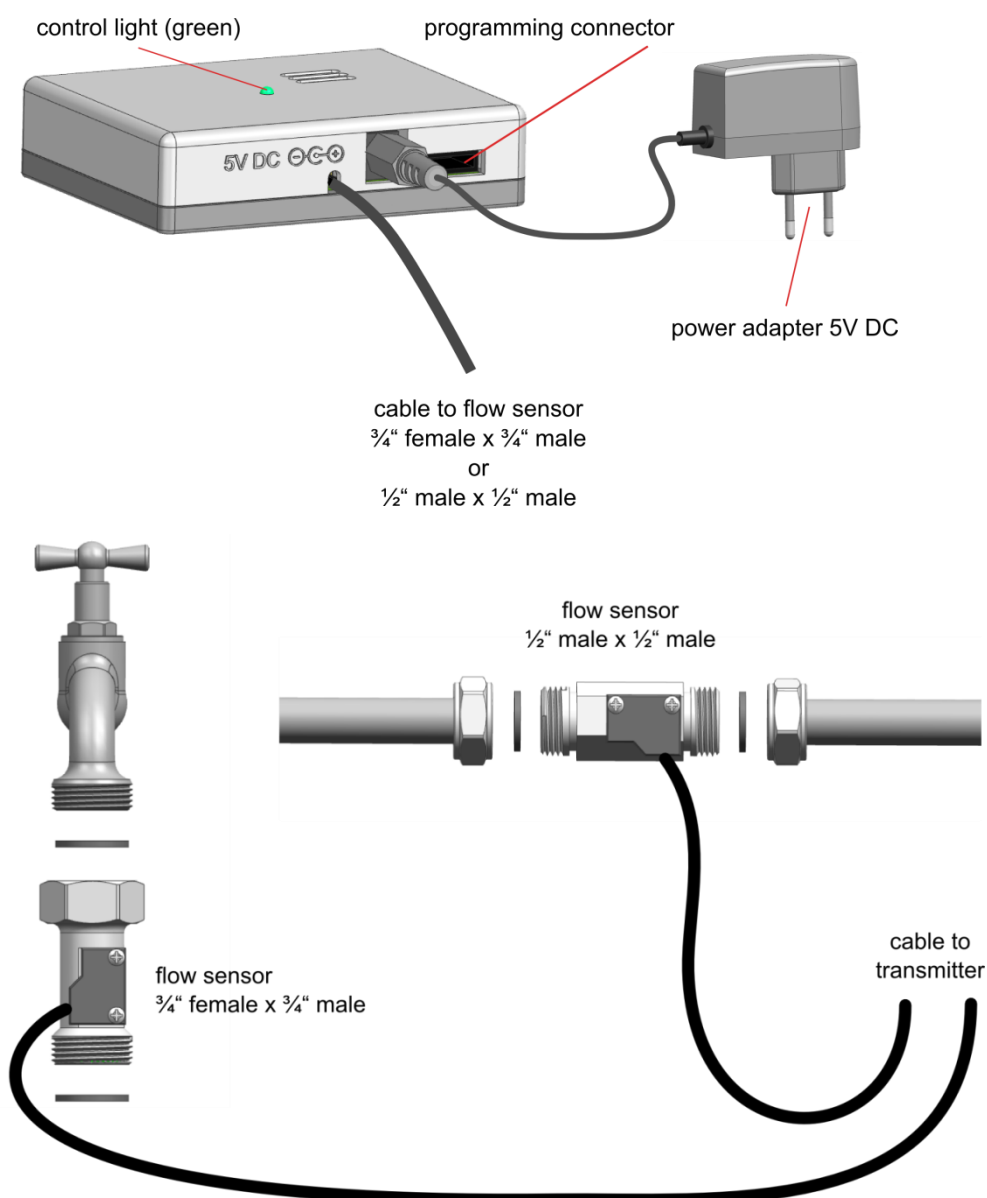
Flow sensor with transmitter

Normal working condition

The green light blinks in intervals. When the sensor detects the opening/closing of the valve controlled, the transmitter sends a wireless signal to the control unit to open or close the shut-off valve.

Fault conditions

1. **The green light does not blink in intervals.**
Please check on the power supply.
2. **The transmitter sends a signal but the control unit does not react.**
Please check the radio range from the position the flow control sensor with transmitter is installed to the control unit by using the remote control.
3. **The green light blinks in quick intervals and the flow sensor does not show any reaction.**
The transmitter has an internal problem and has to be replaced.



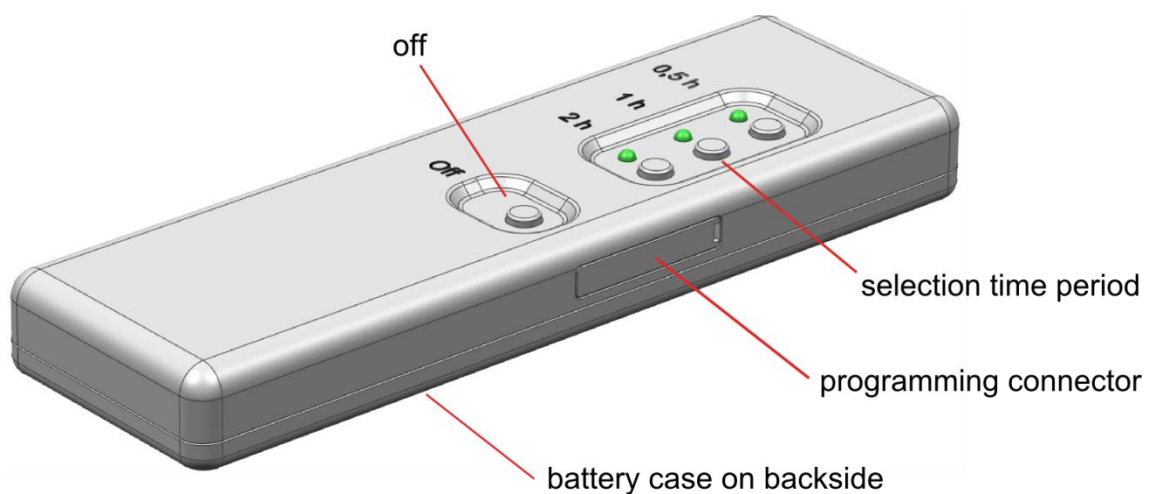
Remote control

Normal working condition

In the normal condition the green light is off. When you push one of the 3 buttons the remote control sends a wireless signal to the control unit to open the shut-off valve for the time period selected. As long as the selected time is running the green light blinks in intervals. After the time selected has elapsed the remote control sends a wireless signal to the control unit to close the valve.

Fault condition

1. **You press one of the time buttons, the control light does not blink in intervals and the valve remains closed.** This situation can be caused by empty batteries. Please replace the batteries.
2. **You push one of the time buttons, the control light blinks in intervals but the valve remains closed.** Possibly the wireless range is not sufficient. Please reduce the distance between the remote control and the control unit or check wireless transmission range from another location.
3. **The green light blinks in short intervals and the remote control shows no function.** The remote control has an internal electronic problem and has to be replaced.



BEEP SIGNALS

Control unit



Alarms

Water flood alarm

Repeated as long as alarm is on



Pressure drop alarm

Repeated as long as alarm is on



Warning beep signals

Pressure sensor, voltage too low, pressure sensor not connected or cable defect

Repeated



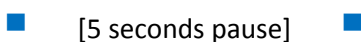
Pressure sensor, voltage too high, pressure sensor not connected

Repeated



Battery low on motion detector or remote control

Repeated



Holiday mode

Actuator is closing valve shut off
Repeated until valve is closed



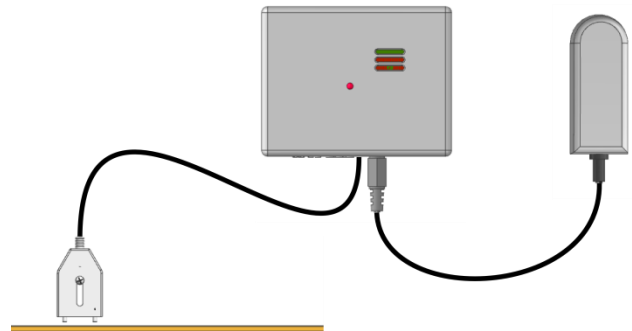
Valve closed
3 seconds beep



Holiday mode stopped



Water sensor



Alarm

Water flood alarm
Repeated as long as sensor is detecting water



PROCEDURE IN CASE OF ALARM

There can be 2 types of alarm

Alarm triggered by water flood

An alarm is triggered when the water sensor is in contact with water. In case you have more than 1 water sensor installed you can identify the water sensor which has triggered the alarm by checking for the water sensor and transmitter with the audio and light alarm signal (see pages 29-30). Check for the cause of the water flood, stop the water flood and dry the 2 contacts of the water sensor. The audio alarm signal of the water sensor/ transmitter stops. Stop the alarm by pushing the red reset button on the control unit. The audio alarm signal on the control unit stops and the system is back in the normal working condition.

Alarm triggered by pressure drop

If an alarm is triggered by a pressure drop a beep and light alarm signal on the control unit is triggered (see pages 29-30). In this case the control unit automatically is closing the shut-off valve. In order to find the reason for the pressure drop please check whether all faucets, taps or other valves are closed. If this is the case then there might be a leakage.

In this case please proceed as follows:

Stop the alarm by pushing the red reset button on the control unit.

Open the shut-off valve by using the remote control and check on the water meter whether there is a flow of water.

If this is the case and all faucets, taps and other water outlets are closed then there should be a leak. In this case please close the shut-off valve by starting the holiday mode on the control unit by pushing the red reset button for 5 seconds until the beep signal for the holiday mode is starting (see page 30).

Call a plumber to locate the point of leakage and to stop the leakage.

In case the water meter does not show water flowing the alarm could have been triggered by a dripping faucet or the toilet flushing system having a small leakage or a leak in the pipe system. In this case please call your plumber for checking on this leakage.

Tip for the plumber:

To open the shut-off valve please finish the holiday mode by pressing the red reset button on the control unit for 5 seconds until the audio signal starts (see page 30).

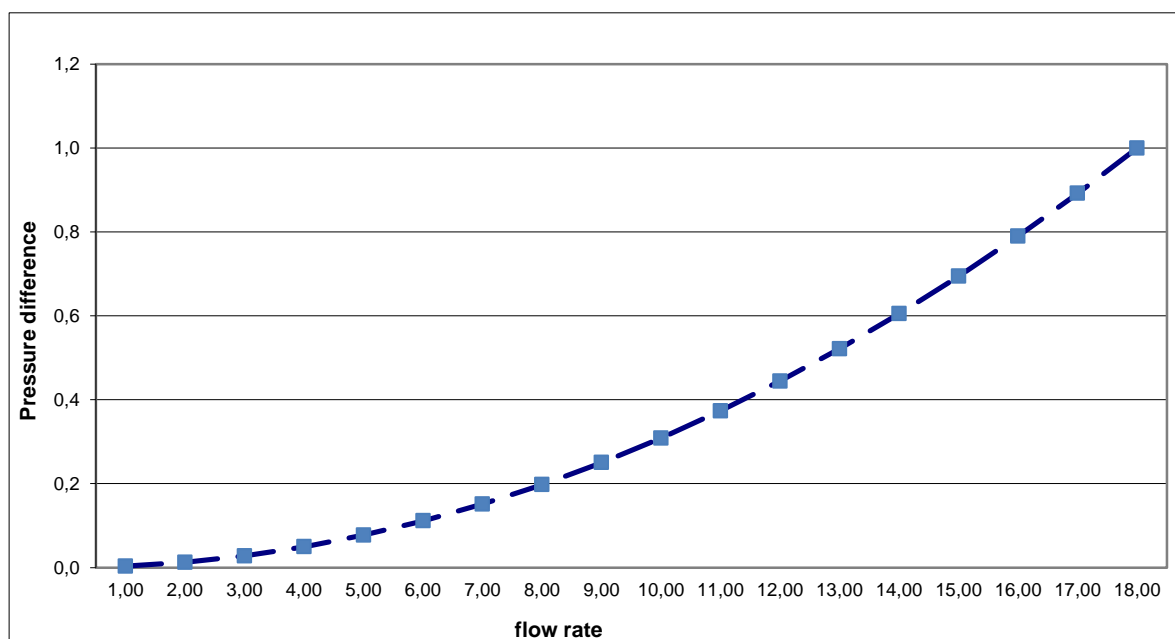
Now you can open the shut-off valve by using the remote control.

TECHNICAL DATA

Ball valve

Nominal size:	DN25 Rp 1"
Working pressure:	10 bar
Temperature:	max +75°C
Bore:	Ø 20mm
Medium:	cold / warm water

Flow rate



Flow rate / kv-value: Kv=18.0m³/h
(flow rate at a pressure difference of $\Delta p=1\text{bar}$)

Actuator

Power supply:	24V AC
Torque:	2.5 Nm
Protection:	IP 31
Running time:	15-18 seconds for 90° turn

Pressure sensor

Size:	G ¼" male thread
Working pressure:	10 bar
Power supply:	5V DC

Wireless transmission between transmitters and control unit

Radio frequency:	868Hz ISM band
Transmission power:	5dBm (ca. 3.16mW)

Control unit

Power supply:	Power adapter 230V AC input / 24 V AC / 750 mA output
Plug:	5.5mm / 2.1mm pin
Power consumption:	< 1W
Power supply actuator:	24 V AC / 300 mA 24 V AC / 380 mA < 60 seconds
Protection of electronic and motor:	resettable fuse

Aquastop-, flow- and water sensor with transmitter

Power supply:	Power adapter, 230V AC input / 5V DC / 500 mA output
Plug:	5.5mm / 2,5mm pin
Power consumption:	< 1W

Remote control and motion detector

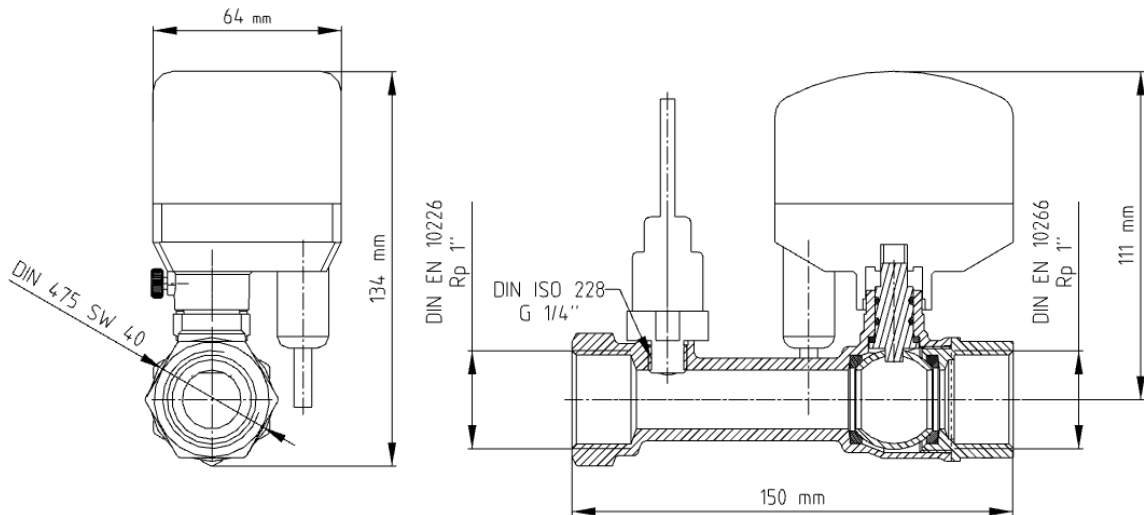
Power Supply:	3 Batteries 1,5V AAA
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Working condition of electronic parts

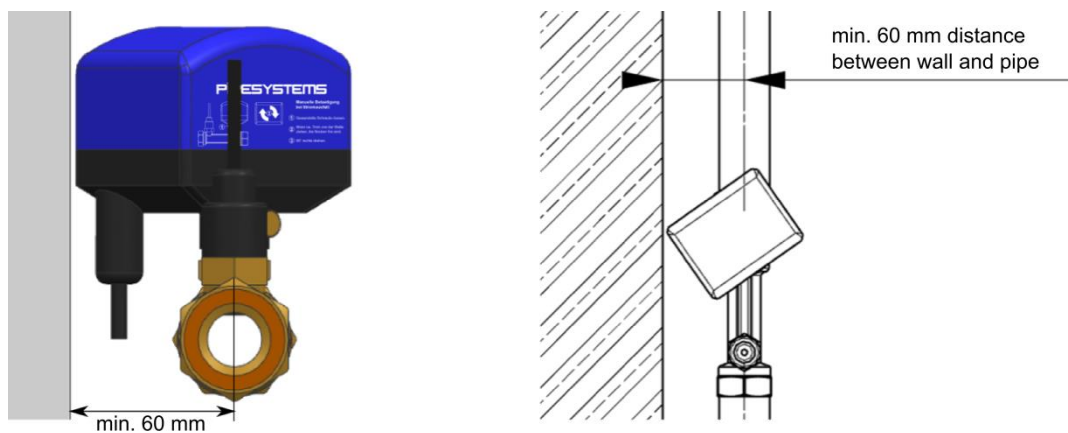
Working temperature	0 °C up to 40°C
Stock temperature:	20 °C up to 70 °C
Humidity on working condition:	10 % up to 85 %, not condensing
Humidity in stock:	5 % up to 90 %, not condensing

DIMENSIONAL DATA

Ball valve with actuator



The distance of 60 mm between the wall and the center of the pipeline has to be kept so that the manual override function is guaranteed.



Components of system (dimensions / weights)

Designation	Art. No.	Length mm	Width mm	Height mm	Cable- length	Weight g/piece
Ball valve	50010					530 g
Actuator	50020				45 cm	360 g
Pressure sensor	50030				30 cm	65 g
Control unit	50040	120	85	25		105 g
Aquastop sensor with transmitter	50050	95	75	25	85 cm	85 g
Water sensor with transmitter	50070	95	75	25	95 cm	85 g
Flow sensor with transmitter ½" female x ½" male	50080	95	75	25	95 cm	215 g
Flow sensor with transmitter ¾" female x ¾" male	50082	95	75	25	95 cm	245 g
Motion detector with 10 minutes follow-up time	50090	130	75	25		90 g
Motion detector with 20 minutes follow-up time	50092	130	75	25		90 g
Motion detector with 30 minutes follow-up time	50094	130	75	25		90 g
Remote control	50100	175	55	20		86 g
Power adapter 5V DC	50110				95 cm	75 g
Power adapter 24V AC	50120				95 cm	504 g
Programming cable	50140				23 cm	

Extension cable

	Art. No.	Plug	Voltage		Length	
For control unit						
5 m for power adapter 24V AC	50150	5.5x2.1mm	24V AC		5 m	
10 m for power adapter 24V AC	50160	5.5x2.1mm	24V AC		10 m	
For pressure sensor						
5 m for pressure sensor	50151				5 m	
10 m for pressure sensor	50161				10 m	
For actuator						
5 m for actuator	50152				5 m	
10 m for actuator	50162				10 m	
For transmitter						
3 m for power adapter 5V DC	50163	5.5x2.5mm	5V DC		3 m	
5 m for power adapter 5V DC	50164	5.5x2.5mm	5V DC		5 m	

We reserve the right to amend technical data.